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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,014

01/18/2006

Gerald Hobisch

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EXAMINER

DOLLINGER, MICHAEL M

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,014	Applicant(s) HOBISCH ET AL.	
	Examiner MIKE DOLLINGER	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dworak et al (US 2002/0077389 A1).
2. Dworak et al disclose aqueous binder mixtures comprising and their use in water-dilutable primer surfacers for automobiles finishing comprising condensation product AB of hydroxyl group-containing resins B and water-soluble or water-dispersible resins A containing acid groups [0010] and pigments [0032]. The condensation products AB preferably have an acid number of from 25 to 75 mg/g and are prepared using the components A and B in a mass ratio of from 10:90 to 80:20, preferably 15:85 to 40:60 [0015]. The resins A may be acidic maleate oil resins A5 with an acid number from 100 to 230 mg/g and in particular 70 to 160 mg/g [0016]. The oil resins A3 may be copolymerized from monomers A31 which are drying oils such as linseed oil and monomers A32 which are unsaturated carboxylic acids including maleic acid tetrahydrophthalic anhydride, acrylic acid and methacrylic acid [0020]. Monomers A32 read on the claimed monomers A1. The drying oils A31 are triesters of glycerol and fatty acids including C14-C30 fatty acids such as linoleic acid, palmitic acid, stearic acid, arachidic acid and oleic acid and henceforth read on the claimed monomers A3 as well

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as A2. Dworak et al do not disclose amounts of the monomers of A3, but one would readily envisage a compound A3 consisting of monomers in the ratio A31/A32 of 50%/50%. The resins B may be polyesters B1 with a hydroxyl number from 70 to 300 mg/g [0024]. This may be achieved by using polyhydric alcohols containing on average at least two, preferably at least 2.1, hydroxyl groups per molecule, with dicarboxylic acids or with a mixture of polycarboxylic and monocarboxylic acids containing on average not more than two, preferably from 1.5 to 1.95, acid groups per molecule [0025]. The production examples polyesters BI and BII include branched and straight chain aliphatic diols reacted with polycarboxylic acids and fatty acids [0047-0050]. In the inventive examples 1-3, the pigment titanium dioxide is used an amount of 43.3 to 44 g of titanium dioxide to 100 g of condensation resin AB [Tables 2 and 3; 0060].

3. Regarding the limitation requiring that the hydroxy functional polyesters be hydrophobic, Dworak et al teach that the polyesters are not water-soluble [0005].

4. Regarding claim 6, case law holds that the selection of any order of mixing ingredients is *prima facie* obvious. *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

5. Dworak et al do not disclose the molar mass of polyesters B1. However, Dworak et al do disclose the molecular weight of hydroxyl group containing polyurethane resins B3, an alternative to the polyesters B1 in condensation product B. Dworak et al disclose that the polymeric polyols B31, reacted with isocyanates B32 to make polyurethane B3, have a number average molar mass of from about 200 to 10,000 g/mol [0027]. Since polymeric polyols B31 make up the bulk of the hydroxyl group

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containing polyurethane B3 and since B3 and B1 have the same hydroxyl and acid numbers (which depend on molar mass), one having ordinary skill in the art would have used the molar mass for the B31 polymeric polyols in determining the molar mass appropriate for the polyester B1.

6. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dworak et al (US 2002/0077389 A1).

7. Dworak et al, discussed above, discloses compositions including condensation resins AB comprising A polycarboxylic acid polymer and B polyhydroxyl polymer.

Dworak et al teach that the aqueous binder compositions are suitable for formulating baking varnishes especially for automobile finishing [0001]. Dworak et al also teach that it is desirable to minimize the energy required for drying, particularly waterborne paints [0002].

8. Awad et al disclose water-dilutable, air drying protective coating compositions based on a combination including water-dilutable alkyd resins [abstract]. The alkyd resins have an acid number of 25 to 75 mgKOH/g [column 1 line 39] and are prepared from the esterification (condensation) between a first-prepared polyester resin and a fatty acid copolymer [column 3 lines 19-28]. The fatty acid copolymer is made up of 30 to 50% by weight of fatty acids (which read on claimed monomer A3), 10 to 25% by weight of methacrylic acid (which reads on claimed monomer A1), and 30-55% by weight of other monomers which apart from the C=C double bond do not carry any other functional groups (which read on claimed monomers A2) [column 2 lines 37-42]. The

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fatty acids include drying oil fatty acids such as linseed oil fatty acid and others [column 2 lines 31-34] which include C14-C30 fatty acids like linoleic acid, palmitic acid, stearic acid, arachidic acid and oleic acid. The preferred example of the fatty acid copolymer has an acid number of 209 mgKOH/g [column 4 line 59]. Awad et al also teach that the products produced from this water-dilutable alkyd resin are air-drying and particularly useful varnishes for metal substrates [abstract].

9. It would have been obvious to one having ordinary skill in the art the time the invention was made to have performed a method of mixing a pigment with a water-dilutable condensation resin prepared from a polyhydroxyl polymer B with 20 to 300 mgKOH/g hydroxyl number and molar mass of 500 to 5,000 g/mol and a polycarboxylic acid polymer A comprising up to 50% by weight of a fatty acid or fatty acid ester monomer A3 and 10-33% by weight of unsaturated carboxylic acid monomer A2 because Dworak et al teach that it is within the skill of the art to perform a method of mixing a pigment with a water-dilutable condensation resin prepared from a polyhydroxyl polymer B with a hydroxyl number of 70 to 300 mg/g and a molar mass of 200 to 10,000 g/mol and a polycarboxylic acid polymer A comprising a fatty acid monomer A3 and by weight of unsaturated carboxylic acid monomer A2 and Awad et al teach that it is within the skill of the art to method of mixing a pigment with a water-dilutable condensation resin prepared from a polyhydroxyl polymer B and a polycarboxylic acid polymer A comprising 30% to 50% by weight of a fatty acid or fatty acid ester monomer A3 and 10-25% by weight of unsaturated carboxylic acid monomer A2. One would have been motivated to use the fatty acid copolymer of Awad et al as

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the polycarboxylic acid polymer A of Dworak et al because Dworak et al are trying to prepare an automotive varnish composition which dries with minimal applied energy and Awad et al teach that the varnishes for metal substrates prepared from the water-dilutable alkyd resins prepared from the fatty acid copolymer are air-drying. Absent any evidence to the contrary, there would have been a reasonable expectation of success using the fatty acid copolymer of Awad et al as the polycarboxylic acid polymer A of Dworak et al.

Response to Arguments

10. Applicant's arguments with respect to claims 1-4, 6 and 7 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MIKE DOLLINGER whose telephone number is (571)270-5464. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/mmd/

/Randy Gulakowski/

Supervisory Patent Examiner, Art Unit 1796